

DEPARTMENT OF INDUSTRIAL RELATIONS
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ADDRESS REPLY TO:
Div. of Apprenticeship Standards
P. O. Box 420603
San Francisco, CA 94142-0603**Date:** March 15, 2011**From:** Glen K. Forman, Acting Chief**RE: California Division of Apprenticeship Standards Review of Industry Practices
as they relate to possible Multi-employer Photovoltaic Installer
Apprenticeship programs**

The Division of Apprenticeship Standards ("DAS") held public hearings in Northern California and Southern California to gather information from industry experts and apprenticeship programs to determine the specifics of the work processes actually being performed and necessary to the safe installation of photovoltaic systems. Based upon the information submitted at those hearings, DAS summarizes its findings as follows:

The occupation of Photovoltaic Installer is becoming recognized as an apprenticeable occupation. At the federal level, the occupation is now included in O*Net:

Occupation: Photovoltaic Installer

O*Net Code: 47-4099.01 <http://www.onetonline.org/link/summary/47-4099.01>

Minimum Length of Program: 24 Months or 3200 hours

DAS found that this occupation is clearly a multi-craft occupation. The process of installing photovoltaic systems includes tasks that are already within the work processes of many established trades and is a part of those apprenticeship programs.

In approving programs in this occupation, DAS will be mindful of the following issues concerning the scope of a Photovoltaic Installer Apprenticeship programs:

- the size of the generation capacity of the installation where this occupation is found seems generally to be 250 KW or less. On larger projects many trades may be involved parts of the installation process. Because of the scope and size of projects larger than 250KW it does not

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appear that a photovoltaic installer would be used to perform the installation. Rather, multiple trades would perform work in connection with such a large installation.

- Whether on large or small jobs, installation work by a photovoltaic installer does not involve work past the "combiner box."
- Where the work includes the installation of traditional materials integrated with photovoltaic materials the sponsoring party of a photovoltaic program may wish provide a linkage into a State of California registered apprenticeship program whose Standards contain those specific materials and work processes. This is similar to the linkage between Sound and Communications Installer trade that is a sub trade of the full Inside Wireman (Electrician) program. Likewise, training in the installation of photovoltaic materials is not an appropriate substitute for full training in the installation and use of traditional materials. For example, a photovoltaic installer who is trained to install window glass with photovoltaic properties is not a trained glazier. Likewise, a photovoltaic installer who is trained to install roofing materials with photovoltaic properties is not a trained roofer.

Suggested work process are, but not limited to;

1. Material Handling
2. Racking Modules
3. Module Installation
4. Module connections
5. Testing and Troubleshooting
6. Maintenance
7. Site Survey

After a number of programs have been approved in this occupation it will be appropriate to establish a Minimum Industry Training Criteria Committee through the California Apprenticeship Council.